### **Testing a Continuing Education System in Reproductive Health**

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### Summary

Under this in-house project, the School of Continuing Education is developing and testing a system for continuing education for nurses and nurse auxiliaries. The School of Continuing Education belongs in the Division of Human Resources and is housed in the School of Nursing. Its continuing education program has until recently benefited primarily professional nurses in and around the capital city. The current leadership recognizes that the greatest needs are in the rural areas and among nurse auxiliaries; therefore, the strategy will be oriented to these service providers.

In the first phase of this OR, the collaboration of the Health Area and District Nurses was secured, and they are serving as the facilitators of the research. A diagnostic study of auxiliary nurses reproductive health knowledge was conducted. The first three modules were developed, pre-tested and printed, along with their accompanying post-test. The topics were Human Sexuality, Integrated Health of the Couple, and STDs and HIV/AIDS. During this first phase the first two modules were distributed to the six participating Health Areas and study begun. The research was delayed for several months because some local approvals took much longer than expected. At the end of this first phase of the research, auxiliary nurses were studying the first two modules and preparing for being examined on the contents.

In the next phase, data will be gathered on the extent to which the auxiliary nurses manage to increase their knowledge in the areas of the modules, and a survey will be conducted among them to determine the feasibility of this strategy for continuing education.

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### I. INTRODUCTION

Guatemala is a Central American country of approximately ten million inhabitants and has some of the worst health indices in the hemisphere, including an Infant Mortality Rate of 51, and a Maternal Mortality Rate, as measured in the 1995 DHS, of 190 deaths per 100,000 live births. The worst health indices in the country are found among the Mayan population, and specifically in the northwest (departments of Huehuetenango and El Quiché) and southwest (departments of Sololá, Totonicapán, Quetzaltenango, San Marcos, Retalhuleu and Suchitepéquez).

The principal health care provider in Guatemala is the Ministry of Health and Social Assistance (MSPAS), which has 36 hospitals, 254 health centers (with a staff of at least one physician, one professional nurse and one of more nurse auxiliaries each), and 857 health posts (generally staffed by one auxiliary and one technician in rural health). Other institutional service providers include Social Security, APROFAM, and a small number of NGOs.

The School of Continuing Education is part of the Division of Human Resources and has its offices in the Nursing School in the capital city. The School of Continuing Education offers courses for nursing personnel of the MSPAS. Prior to this study the School offered two courses of specialization (in Maternal-Infant Care and Program Management) to nurses in and around Guatemala City. Under this OR the School's Director and docent will develop and test a long distance continuing education strategy for auxiliary nurses in the Guatemalan highlands.

### II. PROBLEM STATEMENT

While the professional nurse and especially the nurse auxiliary are the principal service providers in the country, their training in reproductive health is limited. For example, in the MSPAS/Population Council Situational Analysis conducted in October 1993 among 71 health personnel from health centers and posts, only 58% reported that they had received a course in Reproductive Risk, 14% in Counselling, 11% in Sex Education, and 27 % in IUD Insertion. Most of this training was provided by the Reproductive Health Unit of the MSPAS, which has since been eliminated. In a survey of educational needs conducted by the School of Continuing Education in 1996 among 5,000 nursing and auxiliary nursing personnel of the Ministry of Health, among over 500 respondents 53.5% reported that they needed training in Maternal-Child Health. In addition, the personnel of the School of Continuing Education have observed in visits to departmental hospitals that the nurse auxiliaries are providing services for which they are not trained because there is no one else available.

Given the limited budget and human resources of the Ministry, nurses and auxiliaries have few opportunities for professional development. These courses generally are centered on emergencies, such as outbreaks of cholera or measles, the development of high priority programs, such as vaccinations, or the interests that receive international financing.

Training is generally offered by the Ministry from one level to the next lower: first the head nurses of the Areas are trained, next the head nurses of the districts and lastly the nurse auxiliaries. Courses tend to be given in groups, which carries a high cost for transport and per diems. An additional problem with the methodology used is that the nurse auxiliaries have to leave their work during the course, which means that the rural and small-town populations they serve are left without services.

District and Area nurses are supposed to meet monthly with the personnel they supervise. In addition to collecting service statistics, they are supposed to distribute supplies, discuss progress of the programs, and provide in-service education. However, training rarely occurs since there is a lack of material to support the training, and both nurses and auxiliaries rarely receive any material that supports their individual development.

The problem this research is addressing is how to provide opportunities for professional development for nurse auxiliaries who work in the Ministry system.

### III. PROBLEM SOLUTION

One strategy for addressing the problem of a lack of opportunities for training and professional development could be the development of a system of long distance continuing education, somewhat similar to correspondence courses. The advantages of this type of continuing education are a) long meetings are not required since the system is based on independent study; b) if there is an adequate variety of materials, health personnel can concentrate their efforts on topics and content that they most need and that are of interest to them; and c) health personnel who receive training do not have to be absent from work since they study in their free time or when there is little work to do.

A long distance continuing education system could be particularly appropriate for MSPAS since the Ministry has an organized infrastructure and personnel with clearly identified responsibilities who can carry out the continuing education activities. On the other hand, the reading skills of the auxiliary nurses is highly variable, and they generally are not accustomed to independent study. For the purposes of this OR, the activities included a diagnostic study of the possibilities for organizing the activities and of the needs and interests of the nurses and auxiliaries.

### IV. OBJECTIVES

The general objective of this OR is to design and test a long distance system of continuing education in maternal-child health for nurses and nurse auxiliaries. The specific objectives are:

a) To assess the alternatives for organizing the system and conduct an assessment of the needs and preferences for training of nursing personnel of the MSPAS in Quetzaltenango, San Marcos, Sololá, Totonicapán, El Quiché, and Huehuetenango.

- b) To develop five to 10 maternal-child health modules for independent study.
- c) To test the acceptability, effectiveness and impact of the independent study modules in the above mentioned six departments.

### V. METHODOLOGY

### A. Diagnostic Study of Reproductive Health Knowledge

A diagnostic study was conducted among a convenience sample of 255 nurse auxiliaries from six departments of the Guatemalan highlands to determine levels of knowledge about reproductive health care. The results were used as input into selection of training topics for testing long distance education for auxiliary nurses. The research is being carried out by the School of Continuing Education of the Department of Nursing Education and is supported by the Population Council. High proportions of nurse auxiliaries responded correctly to questions about vaccinations, ARI and diarrhea. Knowledge of prenatal, delivery and post-partum care were at moderate levels, However, amount of experience varied greatly with provision of prenatal care being almost universal, and care at delivery and in the post-partum period infrequently provided. Knowledge of family planning and experience in its provision were lowest of all. The results of the study indicate a need to train in family planning and to study the reasons why delivery and post-partum care are infrequently provided. Since prenatal care is widely provided by auxiliaries, a more in-depth study of gaps in knowledge could provide more detail on specific areas of weakness. The report is included in Annex 1.

### B. Development of the System of Long Distance Education to be Tested

The Director and Docent of the School visited the six Health Areas several times to explain the research and secure the collaboration of the Area and District nurses, as well as to solicit their recommendations for study. A Manual was developed for Facilitators of the study (see Annex 2). The first three modules were developed and pre-tested (Appended to this report). Before the first two could be distributed to the Areas, it was determined that the research could not go forward without the authorization in writing of the Director of the Department of Nursing Education, due to re-organization within the Ministry. This process took several months and contributed to a significant delay in the research. At the time the research ended, the approval had been given, and auxiliary nurses were studying the first two modules and preparing to take exams on them.

Study of the feasibility of the strategy of long distance education will continue under funding from the Guatemala Cooperative Agreement.

### VI. RESULTS

Results of the diagnostic study are reported on in Annex 1. Results of the feasibility of this strategy of continuing education will be reported on at the end of the next phase of the research, to be supported by the Guatemala Cooperative Agreement.

### VII. DISSEMINATION

In April, 1998 results of the diagnostic study were presented to the Technical Working Group. The Directors of all the Schools of Nursing and Auxiliary Nursing were present for the presentation.

A paper on the diagnostic study has been accepted for presentation at the 1998 meeting of the APHA.

# **ANNEXES**

### ANNEX 1. Report on Diagnostic Study of Auxiliary Nurse Knowledge of Reproductive Health Care

#### Introduction

In Guatemala the principal provider of health services is the Ministry of Health and Social Assistance (MSPAS) through a network of regional hospitals, health centers and health posts. The largest number of providers in these institutions are the nurse auxiliary. Educational requirements for entrance to a school for nurse auxiliaries include a minimum of 9 years of basic education, and the school provides 10 months of basic nursing training.

Health indices in the rural areas are the worst in the country, and health care and education are complicated by the existence of 24 different languages, apart from Spanish. The auxiliary nurse is often the sole source of health care and information in rural areas, apart from traditional healers and birth attendants (TBAs). The auxiliary nurse is expected to attend normal births and train and support TBAs.

Because of the importance of the role of the nurse auxiliary, the School of Continuing Education within the Department of Nursing Education in the MSPAS is developing and testing a system of long-distance education with support from the Population Council. The strategy of long-distance education has the advantage over traditional classroom designs of not removing the trainee from his/her place of work, where in Guatemala there may be no alternative for care, since many of the nurse auxiliaries work in very remote locations.

To determine the areas of greatest need for continuing education, the research began with a survey of knowledge about various reproductive health topics, specifically prenatal care, delivery, postnatal care, vaccinations, and family planning. The questions were based on the Ministry norms. The results have provided input into the selection of subjects to be covered.

### Methodology

Sample Selection and Data

A multiple response questionnaire was designed. It consists of 68 items and measures knowledge about basic health care for women and children and MSPAS norms. It also includes questions about the respondents' experience in providing reproductive health care. During late 1997, the questionnaire was administered by the Health Area and District level nurses, the supervisors of the auxiliary nurses, under the direction of the investigators.

A convenience sample of 255 nurse auxiliaries were selected in six Health Areas of the Highlands. The auxiliaries were drawn principally from health centers and posts. \*The questionnaire was applied anonymously; that is, the respondents were not asked to provide their names.

The questionnaires were collected by the School of Continuing Education, and data were entered into a database and analyzed using SPSS in the Guatemala offices of the Population Council.

### Characteristics of Respondents

In all, 67.5% of the respondents were female. More than half work in health centers (52.2%), and 44.2% work in health posts. Only two reported a hospital as the workplace. Almost half of the respondents are between 30 and 39 years of age, with a fifth in their twenties and another fifth in their forties. The respondents had worked as nurse auxiliaries a mean of 9.6 years, with a range of less than one to 36 years.

The 255 respondents represented approximately 46% of all auxiliary nurses who work in the MSPAS facilities of those areas. Although the sample selection was non-probabilistic, the size relative to the entire population provides some basis for generalizing from this study to the country as a whole, or at least to the nurse auxiliaries of the highlands.

### Results

Because nurse auxiliaries are often the only Ministry personnel available to provide health education, respondents were questioned about the languages spoken in the community where they work and their responses were compared to the languages the nurse auxiliaries reported speaking themselves. More than half the respondents reported speaking only Spanish (57.1%). For each of the four principal Mayan languages spoken by the communities where 164 of the respondents work - Mam, K'iche', Tzutujil, and Kakchikel - a comparison was made of languages spoken by the nurse auxiliary to determine the extent to which she/he is able to provide health education for monolingual clients. Between 38.5% and 53.8% of respondents reported speaking a major Mayan language spoken in the community (see Table 1). The most frequently reported community language was K'iche' which was spoken by 44.9% of the respondents who worked in K'iche' speaking communities.

### Prenatal

The respondents were asked to indicate from a list of five factors which could place a woman at "preconceptional" risk. Nearly two-thirds recognized adolescent age as placing a woman at risk, followed closely by grand multiparity and anemia. Only 38.4% recognized hemorrhage as a risk factor and less than one-fifth responded obesity. Only 9.8% recognized all five as risk factors.

According to the Ministry norms, the following four activities should be carried out during prenatal care: taking of vital signs; giving iron to all pregnant women; calculation of amenorrea; and a clinical history. Only one quarter of the respondents cited all four activities. The most frequently cited was taking of vital signs, reported by 95.2% of respondents, followed by giving iron (73.2%), calculating amenorrhea (58.0%), and taking a clinical history (40.0%).

Respondents were given three possible sets of signs and symptoms and were requested to check those that are characteristic of an abortion. All 255 repondents answered correctly. They were also given edema, hypertension and albuminaria as signs and symptoms and asked to indicate which of four alternative responses these symptoms are characteristics of. In all 92.2% responded correctly that they were symptoms of pre-eclampsia.

A list of four diseases - whooping cough, hepatitis, mumps and rubeola - were presented, and the respondents were asked to indicate which is a contagious disease that can cause problems for a fetus in the first trimester. Slightly over half of the respondents selected rubeola, a third selected hepatitis, and small number selected whooping cough, mumps or did not respond.

The Ministry norms state that a woman with a normal pregnancy should receive prenatal care weekly in her ninth month of gestation. When asked how often she should be seen and presented with four alternatives, only 41.2% of the respondents answered correctly. A larger proportion (45.5%) responded every two weeks, while almost a tenth said at the end of the month.

### Labor & Delivery

The Ministry Norms establish a normal fetal heartbeat during labor as 120 to 160 beats per minute. In all, 80% of the respondents selected this range from among five alternatives.

As with prenatal care, respondents were provided a list of activities, four of them correct and one incorrect, and asked to indicate which are conducted during labor and delivery. Some 13% of the nurse auxiliaries did not respond to this question at all. Of the 221 who did, one third marked all four correct activities and not the incorrect.

Respondents were presented with a list of four situations and asked to indicate which are contraindications to touching the vagina during labor and delivery. Only 11.8% marked all three: premature rupture of the membranes (72.0%), vaginal hemorrhage (53.4%), and suspected infection (37.3%).

Respondents were asked how long after the birth of a baby should expulsion of the placenta occur. They were presented with four options. Of the 255, 78.4% responded correctly within half an hour.

Four options for recognizing the beginning of labor were presented, two of which were correct. Two-thirds of the nurses recognized both of the correct responses: 89.9% indicated frequent contractions, and 74.1% indicated expulsion of the mucous plug.

### Post-Partum

Respondents were presented with a list of five risk factors - three correct and two incorrect - and were asked to indicate which required special attention in the post-partum stage. One fifth correctly indicated all three. Puerperal infection was cited most often (88.2%), followed by hemorrhage cited by 79.8% and uterine inversion by 28.6%

In general the respondents know the three stages of the puerperium: 71.8% responded correctly that the stages are immediate, intermediate and late.

Respondents were questioned about their recognition of signs and symptoms. First, three symptoms were presented - fever, foul odor, and prurulent secretions - and respondents were asked to select which one of four inflammations they signal in the post-partum stage. Nearly all (85.1%) correctly selected endometritis from a list that also included mastitis, urethritis and nephritis. Next, they were presented with leg pain as a symptom following delivery and asked to indicate which of the following five the leg pain signals: vaginitis, endometritis, migraine headache, phlibitis, or salpingitis. Although phlebitis was the most frequently selected, only slightly more than one-third responded correctly (36.9%). Nearly as many selected endometritis (31.8%), another 10.6% responded vaginitis, and 16.9% did not respond.

One of the keys to quality care by nurse auxiliaries is knowledge of when a patient must be referred to a higher level of care. Respondents were asked what a nurse auxiliary should do when presented with a patient with vaginal hemorrhage, breast infection and urinary infection in the post-partum. The four alternative responses included: observe, refer immediately, refer the following day, and depending on the evolution of the disease. Nearly all (93.7%) answered correctly, refer immediately.

Health education is a crucial responsibility of the nurse auxiliary. The respondents were presented with a list of five topics, 3 correct and 2 incorrect, and asked which should be included in the counselling provided in the post-partum stage. The most frequently cited was family planning, reported by 88.1%, followed by care of the newborn (73.0%), and general hygiene (70.2%). Nearly half (46.7%) correctly cited all three.

### Family Planning

The respondents were questioned about contraindications to both DepoProvera and pills. For each method, four options were presented. In the case of oral contraceptives, only 16.9% correctly cited stroke, heart attack and some liver diseases but not anemia as contraindications. In the case of DepoProvera, 29.8% responded correctly that pregnancy, suspected pregnancy and unexplained vaginal bleeding were contraindications but not cigarette smoking. They were further asked about the interval between doses of Depo, and 87.5% of the total responded that Depo is given every three months. However, less than half (46.7%) indicated that Depo should be initiated after 6 weeks post-partum when the mother is breastfeeding.

#### Vaccinations

Knowledge of vaccinations was uniformly high among respondents, as seen in Table 2, which probably reflects the large amount of in-service training the Ministry of Health has provided on the subject. Respondents were queried about the diseases prevented, mode and timing of administration. The vaccinations included in the questions were D.P.T., polio, B.C.G., Tetanus Toxoid, and measles, although not all three questions were asked about all five vaccines. Correct responses ranged from a low of 83.9% to a high of 99.6%.

### Experience

Respondents were asked to estimate the number of times they had provided prenatal care, attended a delivery, provided post-partum care, and provided a family planning consultation. Although the problem of recall is well-

known, the intention was to get an approximate estimate for comparison purposes, not develop an exact record. Recall bias is likely to apply equally across all four types of service, and not affect a comparative analysis of their experience.

Table 3 presents the responses. Initially it appears that the nurse auxiliaries have the most experience in providing prenatal care, the least in attending deliveries, and about equal amounts of experience in providing family planning and post-partum care. If we look only at proportions of respondents who said they had never provided the specific services, for example, only 3.2% reported providing no prenatal care, while 28.6% reported never attending a delivery. For post-partum and family planning, 9.6% and 10.2% of respondents stated they had never provided these services. A similar pattern is found when the data are analyzed for those who reported having provided the service a hundred times or more: 70.0% reported providing 100 prenatal consults or more, 13.4% attending 100 deliveries or more, while 39.0% and 42.1% reported providing at 100 or more post-partum and family planning consultations respectively. However, one striking feature of this study was the number of nurse auxiliaries who did not respond to the questions about the number of services they had provided, particularly for family planning where more than half did not respond. Because the study was anonymous, it was not possible to interview respondents who did not answer this question to find out why. Several health professionals who reviewed the data were asked for their best estimate of a reason, and all responded that the most likely was that the non-responding nurse auxiliaries had not provided any consults of that type.

In order to assess the pattern of experience if, in fact, the non-responses were indicative of no experience, the data were analyzed assuming that each non-response was equivalent to no experience in the delivery of that service. Table 4 presents the results. The pattern changes somewhat from that seen using only responses. Prenatal care is still the most frequently provided of the four services - prenatal, delivery, post-partum, and family planning. It has the lowest proportion of nurse auxiliaries reporting no experience and the highest proportion reporting 100 or more. Using this theoretical analysis, all three of the other services are quite neglected in comparison, particularly family planning. For example, if all the non-respondents attended no deliveries, almost four in ten have no experience in this area, and well over half have never provided family planning services. Of note for the Ministry and programs concerned with reducing mortalities surrounding deliveries is the fact that slightly over a tenth of the nurse auxiliaries (in both tables) have attended a large number of deliveries and are natural targets for intensive training.

### Discussion

Knowledge levels were highest for vaccinations, generally over 98%. The analysis demonstrates that the Ministry of Health can be successful in increasing knowledge of auxiliaries in areas of emphasis and through inservice training. Because Guatemala still has excess mortality from preventable diseases, the Ministry for many years has placed heavy emphasis on training in vaccinations. The results of this study demonstrated that the nurse auxiliaries have almost universal knowledge about diseases prevented by basic vaccines, and their mode and timing of administration. Because knowledge levels are so high, the Ministry could probably begin to emphasize other areas and thus increase the impact of in-service training on maternal and infant mortality.

Ministry norms call for nurse auxiliaries to train TBAs in safe labor and delivery. Anecdotal evidence suggests that there is often little respect on the part of TBAs for the nurse auxiliary and an unwillingness to receive his/her supervision. The findings of this study demonstrate the very low levels of experience among most nurse auxiliaries in attending births, which may explain why very experienced TBAs show reluctance to accept the nurse auxiliary. This finding calls into question the feasibility of this Ministry norm, but it also indicates a cost-effective strategy for reducing maternal and infant mortalities: if limited training resources are concentrated on the nurse auxiliaries who attend the most births, the slightly over 10% who have attended 100 or more, the impact of training will be felt in a greater number of births than if equal amounts of training are spread over a large number of auxiliaries.

While post-partum and family planning services are neglected, knowledge levels are not greatly different from those related to prenatal care, suggesting that something other than lack of training may be behind the neglect. Additional research is needed to find out why these services are not provided more often and how they can be

increased. Nonetheless, the generally modest levels of knowledge among nurse auxiliaries about prenatal, post-partum care and family planning suggest a need for a continuous program of in-service training in these areas and for testing innovative ways to make widespread training available despite limited resources. This is the challenge that the School of Continuing Education is undertaking with support from the Population Council.

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Table 1. Percentage of respondents who reported speaking the Mayan language of the community where they work

Language	No. of respondents who repondents who work in communities that speak language	Respondents wh language N	o speak %
Mam	32	12	38.5
K'iche'	98	44	44.9
Tzutujil	13	7	53.8
Kakchikel	21	11	52.4

Table 2. Percent of correct responses by vaccine

Vaccine	Disease Prevented	Mode of Administration	Timing
DPT	NA	NA	98.4
Polio	NA	98.0	99.2
BCG	98.4	83.9	NA
Tetanus Toxoid	99.6	NA	NA
Measles	NA	NA	98.8

NA = Not asked

Table 3. Percentage distribution of respondents by number of consults reported by type of service provided

Number of consults reported	Prenatal N=186	Delivery N=217	Post-Partum N=177	Family Planning N=126
None	3.2	28.6	10.2	9.6
1 - 9	7.0	34.1	15.3	23.8
10 - 49	10.8	20.3	22.0	14.3
50 - 99	9.1	3.7	13.6	10.3
100 or more	70.0	13.4	39.0	42.1
Total %	100.1	100.1	100.1	100.1
Number not responding	69	38	78	129

Table 4. Percent of respondents by number of consults they have provided by type of care, assuming nonrespondents provided none  $\underline{N} = 255$ 

Number of consults reported	Prenatal	Delivery	Post-Partum	Family Planning
None	29.4	39.2	37.7	55.3
1 - 9	5.1	29.0	10.6	11.8
10 - 49	7.9	17.3	15.3	7.1
50 - 99	6.7	3.1	9.4	5.1
100 or more	51.0	11.4	27.1	20.8
Total %	100.1	100.0	100.1	100.1

### Annex 2. Guide for Research Facilitators

Guía para facilitadores de áreas y de distritos de salud para la educación a distancia con auxiliares de enfermería

Guatemala 1998

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#### INTRODUCCION

La Escuela de Educación Contínua en Enfermería, fue fundada en 1963 dentro del departamento de Educación de Enfermería que pertenence a la División de Recursos Humanos del Ministerio de Salud Pública y Asistencia Social. Su misión es capacitar al personal de enfermería de la república para que su labor sea más eficiente y eficaz, la cual le permitirá dar atención de calidad al paciente o usuario en los servicios de salud. Es encargada de las capacitaciones del personal de enfermería del país, la escuela elaboró una encuesta de necesidades de educación que se aplicó a todos los departamentos de la república. Se giraron cinco mil encuestas de ello se tomó el 10% como muestra representativa del diagnóstico. Uno de los resultados urgentes obtenidos en dicha encuesta fue que el 53% del personal solicitó capacitación en el área Salud Materno Infantil. Para ello se decidió elaborar un proyecto de capacitación a distancia para auxiliares de enfermería de los departamentos del altiplano de Guatemala, por ser la población mayoritaria y por tener indicadores de salud más negativos del país. Se elaboró el proyecto y se presentó al Consejo de Población en Guatemala que es una organización no gubernamental, sin fines de lucro, que se preocupa en buscar metodologías innovadoras en la capacitación del personal prestador de servicios de salud en las áreas de difícil acceso abarcando trabajos sobre las ciencias sociales de salud y biomédicas en colaboración con organizaciones gubernamentales y no gubernamentales, dicha institución vió las necesidades y la posibilidad de apoyar el proyecto. Ambas instituciones vieron las necesidades de capacitación al personal de enfermería y en coordinación realizan este estudio que se refiere a la Capacitación de Educación a Distancia, dirigido al personal de enfermería en especial al personal auxiliar de enfermería que trabaja en centros y puestos de salud específicamente del área del altiplano de Guatemala.

### Educación a Distancia:

Es una metodología de enseñanza-aprendizaje favorable al proceso de desarrollo del Recurso Humano en servicios. Este método es interesante en el sentido de introducir al participante estudios efectuados totalmente bajo su responsabilidad. Sus ventajas son: No requiere de reuniones prolongadas y continuas, los contenidos están basados en el auto estudio de materiales previamente preparados, no hay necesidad de abandonar el lugar de trabajo, el participante puede estudiar los materiales tanto dentro de su tiempo libre como en los momentos de baja demanda dentro de los servicios de salud verificando el aprendizaje en post-test, ejercicios prácticos, laboratorio de prácticas y exámenes al finalizar el estudio de cada módulo.

### **OBJETIVOS**

### **Objetivo General:**

Desarrollar y probar un Sistema de Educación Contínua a Distancia en Salud Reproductiva y Materno-Infantil para auxiliares de enfermería.

### **Objetivos Específicos:**

- a) Realizar un diagnóstico sobre la posible organización, las necesidades y preferencias de capacitación entre el personal de enfermería del MSPyAS.
- b) Desarrollar módulos de auto-estudio sobre temas en Salud Materno Infantil.
- c) Promover el desarrollo del recurso humano del personal auxiliar de enfermería con la finalidad de que presten un servicio oportuno y de calidad al usuario.
- d) Capacitar al personal de enfermería de centros y puestos de salud con el propósito de contribuir a disminuir la morbi-motalidad infantil.
- e) Probar la aceptabilidad, efectividad e impacto de los módulos de auto-estudio de los participantes.
- f) Fortalecer el área de occidente en el desarrollo de programas de educación permanente.

# CAPITULO I. EL PROCESO DE EDUCACION A DISTANCIA EN SALUD MATERNO INFANTIL PARA AUXILIARES DE ENFERMERIA

### 1. Descripcion del Programa:

El programa ofrece oportunidad de capacitación sobre temas en Salud Materno Infantil para el personal auxiliar de enfermería, utilizando la metodología de educación a distancia. Dicho programa pretende reforzar y actualizar los conocimientos que posee el personal que trabaja en los servicios de salud. Consiste en el desarrollo de módulos integrados de educación Materno Infantil y que cada participante los estudie independientemente.

### 2. Requisito de los Participantes:

- Ser auxiliares de enfermería de un curso reconocido por el Ministerio de Salud Pública y Asistencia Social.
- Prestar servicios en centros o puestos de salud.
- Estar en un área con indicadores de salud negativos.
- Personal que idealmente desee participar en la capacitación y dispuesto a responder las demandas que la metodología educativa exige.
- Presentar fotocopia de diploma de Auxiliar de Enfermería y carnet de registro.

### 3. Responsabilidades de la Enfermera Facilitadora de Area de Salud:

La enfermera de área tendrá como responsabilidades:

- Comunicarse con las encargadas de la Escuela de Educación Contínua sobre el proceso del proyecto.
- Comunicar a las enfermeras facilitadoras de los distritos de salud sobre cualquier información del programa.
- Recoger los módulos en la Escuela de Educación Continua firmar y llevar el control del número recibido.
- Entregar los módulos a la enfermera del distrito y en casos necesarios se le entregará al personal que se designe para recogerlos, siempre llevando un registro control.
- Llevar el registro de participantes inscritos en el programa, según informática elaborada para el efecto.

Enviar mensualmente la información del registro de los módulos entregados y las respectivas notas de los exámenes en la Escuela de Educación Contínua, según hoja de informática (adjuntando exámenes).

- Firmará constancias de aprobación de los participantes.
- Entregará constancias a enfermeras del distrito o a los participantes.

### 4. Responsabilidades de la Enfermera Facilitadora de Distrito:

En cada área se acordó que las/os enfermeras/os de los distritos de salud fungirán como facilitadores del proyecto con el personal de los centros y puestos de salud a su cargo.

- Recoger o facilitar la obtención de módulos y de exámenes con la enfermera facilitadora de área.
- Firmar el número de módulo recibido y llevarlo bajo un registro control.
- Entregar módulos a los participantes.
- Comunicar a los participantes la fecha de exámenes.
- Pasar exámenes.
- Calificar exámenes.
- Enviar el listado de participantes, las notas de exámenes, los exámenes y sus hojas de respuestas con la enfermera facilitadora de área.
- Supervisar la atención de servicios de los participantes.
- Reforzar los conocimientos de los participantes en las áreas débiles según necesidades detectadas.

- Atenderá a los participantes a resolver dudas sobre los contenidos de los módulos.
- Elaborará su plan de supervisión, entregándolo a la Enfermera Jefe de Area.

### 5. Responsabilidades del Personal Auxiliar de Enfermería:

- Recogerá su módulo con la enfermera de distrito.
- Estudiará en forma independiente los módulos, ya sea en las horas de baja demanda en los servicios o en su tiempo libre.
- Se avocará con la enfermera de distrito por cualquier duda sobre los contenidos de los módulos.
- Averiguar con la enfermera de distrito la fecha de exámenes.
- Se someterá a un examen por módulo.
- Cada examen lo aprobará con 70 puntos.
- Los conocimientos los aplicará en la práctica.

### 6. ¿Qúe es un Módulo?

Un módulo es un manual de estudio y de consulta, proporcionando contenidos básicos para reforzar y actualizar los conocimientos y las prácticas en los servicios de salud. Para su desarrollo se parte a través de los resultados del diagnóstico, y de las sugerencias de los participantes en el programa. Se desarrollan temas en Salud Materno Infantil, cada uno contiene pre-prueba, post-prueba, ejercicios prácticos y no mayor de 100 hojas.

### 7. Módulos y Contenidos:

No.	NOMBRES	CONTENIDOS
01	Sexualidad Humana.	<ul> <li>La Educación en la Familia,</li> <li>Anatomía y Fisiología de Aparatos Reproductores M. y F.</li> <li>Técnicas de Realizar Exámenes de Mamas y Genitales Femeninos.</li> </ul>
02	Salud Integral de la Pareja.	<ul> <li>Orientación en Espaciamiento de Embarazos.</li> <li>Riesgo Reproductivo.</li> <li>Planificación Familiar.</li> </ul>
03	Las Enfermedades de Transmisión Sexual y su Manejo.	<ul> <li>La Educación como Medida Preventiva de las E.T.S.</li> <li>VIH/SIDA.</li> <li>Normas Generales de Bioseguridad.</li> <li>Tuberculosis y VIH/SIDA.</li> <li>Mujer y SIDA.</li> <li>Consejería en VIH/SIDA.</li> </ul>
04	Educación en Salud.	<ul> <li>Educación Para La Salud.</li> <li>Cómo Transmitir Mensajes de Salud, Métodos y Medios.</li> <li>Aplicación en la Práctica.</li> </ul>
05	Enfoque de Género.	<ul><li>Derechos de la Mujer.</li><li>Aspectos Legales.</li></ul>
06	Prenatal y el Proceso Reproductivo.	<ul> <li>Prenatal.</li> <li>Parto.</li> <li>Post-parto.</li> <li>Crecimiento y Desarrollo del Niño.</li> <li>Estimulación Temprana.</li> </ul>
07	Consejería.	- Técnicas y Temas para Practicar en los Servicios de salud.

### 8. ¿Cómo Consigue la Jefatura de Area de Salud los Módulos?

La enfermera de área facilitará la obtención de módulos en la Escuela de Educación Contínua de la ciudad capital, a través de los vehículos de las mismas y luego serán entregados a los facilitadores de distritos quienes se encargarán de facilitar la entrega a sus participantes en el programa. Los módulos se registrarán en el departamento de enfermería de las jefaturas de área de salud. La enfermera de área llevará un control estricto del total de módulos que recibe y que repartirá. Se le entregará un folder con la informática específica para cada módulo la cual deberá de llenar con los datos que se le pide.

### 9. ¿Cómo Consigue el Auxiliar de Enfermería los Módulos?

El estudio de los módulos llevará un orden consecutivo. Los participantes recogerán sus módulos de estudio con la enfermera de sus respectivo distrito, cuando el auxiliar de enfermería pide un módulo, deberá proporcionar los datos correctos que la enfermera de área o de distrito le pide, para su respectivo registro en el programa de Educación a Distancia. El personal auxiliar de enfermería está concientizado en relación a la inversión del tiempo aproximadamente un módulo mensual, a la responsabilidad que deben asumir ante la capacitación, de su permanencia en el proceso, y del rendimiento que deberá obtener en su trabajo a fin de aprobarla.

### 10. ¿Cómo Consiguen los Participantes sus Exámenes?

Los exámenes se concentrarán en las jefaturas de áreas, cuando un participante haya terminado de estudiar su respectivo módulo y esté listo a tomar el exámen, lo indicará a la facilitadora de su distrito quién le dirá la fecha del mismo o en el día de entregar los módulos se les puede avisar

de la fecha, la enfermera del centro de salud facilitará la obtención de los exámenes en las jefatura de área de salud, luego los pasará a los participantes encargándose también de calificarlos y enviar resultados con la facilitadora de área.

### 11. Qué Pasa si Algunos de los Participantes no Aprueban el Curso?

Si el auxiliar de enfermería no aprueba un examen, tendrá derecho a una segunda rehabilitación para poder retomarlo con un período no mayor de quince días. Al aprobarlo recibirá su constancia y continuará con el siguiente módulo.

### 12. Reconocimiento a los Participantes:

A aquellos participantes que se esmeraron y se automotivaron en reforzar sus conocimientos leyendo los módulos, después de someterse a un exámen cognoscitivo, de obtener 70 o más puntos en los exámenes y de acuerdo a los informes mensuales o del registro de las personas inscritas y su progreso en la capacitación que entregará la enfermera jefe de área, cada participante recibirá una constancia específica firmada por la Directora de la Escuela de Educación Continua, la Representante del Consejo de Población en Guatemala, la Enfermera Jefe de Area de Salud y al finalizar el estudio de los módulos contemplados se le otorgará a los participantes una certificación de estudios y un diploma de reconocimiento como facilitadores del programa a las enfermeras de distritos.

13. A quien acudirá el Auxiliar, La Facilitadora de Distrito y de Area cuando tenga dudas? Por cualquier duda de los participantes sobre los contenidos de los módulos se comunicará con la enfermera de distrito y la enfermera de distrito por algunas inquietudes o dudas se comunicará con la enfermera de área y la facilitadora de área lo hará con las encargadas de la Escuela de Educación Contínua.

### CAPITULO 2. LA INFORMATICA

### 1. Registro de Módulos Entregados:

Cada módulo tiene un folder para registrar información sobre la entrega de cada módulo y los exámenes. El registro se lleva y se guarda en el Area. La información que está abajo se debe registrar para cada módulo que se reparte. Cuando un módulo está entregado a una persona, es necesario anotar el nombre de esa persona, su lugar de trabajo, su cargo y la fecha de la entrega se registran en el folder que corresponde al número del módulo entregado. Luego, cuando la persona se presenta para tomar un examen, la fecha se registra. (Si la persona quien recibe el módulo no toma el examen, esa columna permanece en blanco.) Cuando el examen está calificado (por la Enfermera de Area o la persona que ella nombra), se registra el punteo y si se aprobó el examen (sí o no). Cada registro se mantiene permanentemente mientras el Area participa en el programa de Educación a Distancia.

Nombre de la persona quien recibe el módulo Nombre del Lugar de Trabajo Indicar nombre y si es puesto de salud (P) o

centro de salud (C)

Cargo de la

persona quien recibe el módulo (AE= Auxiliar de

Enfermería; EP = Enfermera Profesional.

Fecha de la entrega Mes/Día/Año

Fecha de Tomar el Examen Mes/Día/Año

Punteo Porcentaje de respuestas correctas

Aprobó Sí aprobó; No aprobó

#### 2. Informe Mensual

El Informe Mensual se envía a finales de cada mes a la Escuela de Educación Continua en Enfermería en la ciudad capitalina. El informe sirve para llevar un inventario de los módulos y para mantener informadas a las Directoras de la Escuela de Educación Continua en Enfermería

de cuántas personas se han aprovechado de los módulos. A través de los informes mensuales, las personas quienes aprobaron el examen de un módulo, recibirán su constancia. Por eso es importante escribir claramente, preferentemente a máquina, los nombres de las personas quienes aprobaron el examen. Es necesario también poner el número que la persona que aprobó el examen lleva en el Registro de Módulos Entregados.

Como cada módulo tiene una constancia específica, hay que proveer el número del módulo aprobado.

Area de Salud:	Nombre de la Enf. Fac. del Distrito
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#	Nombre de la persona a quien se entregan los módulos	Lugar de Trabajo.	Cargo	Fecha de la entrega Mes/día/año	Fecha de tomar el examen	Punteo	¿Aprobó? Sí / No
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

### Educación Continua para Auxiliares de Enfermería Informe Mensual

Area de Salu	d:			
Para el Mes d	le:/19			
Nombre y Fir	rma de la Facilitadora	de Area:		
Módulo #	# de Modulos	# de Modulos que	# Personas que tomaron	# de Personas que

Módulo #	# de Modulos entregados en el mes	# de Modulos que quedan en el Area	# Personas que tomaron examen en el mes	# de Personas que aprobaron el examen*
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

\*Adjuntar abajo los nombres de las personas que aprobaron cada examen y el examen. Los nombres deben ser legibles para la emisión de la constancia.

Número del Módulo	Nombre de la Persona que se examinó	Punteo	
_			